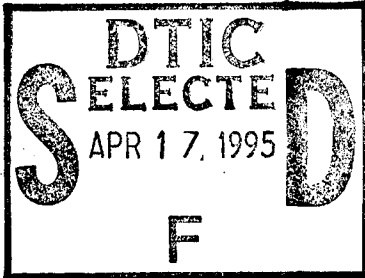


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ANTARCTICA'S LOGISTICS DEFINED AS A
MILITARY OPERATION OTHER THAN WAR



by

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A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

Signature: *Margaret R. W. Reed*

November 1995

Paper directed by LCOL Martin
Joint Military Operations Department

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2/13/95
Date

DTIC QUALITY INSPECTED 5

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Security Classification This Page Unclassified
REPORT DOCUMENTATION PAGE

1. Report Security Classification: (U)			
2. Security Classification Authority: N/A			
3. Declassification/Downgrading Schedule: N/A			
4. Distribution/Availability of Report:		DISTRIBUTION STATEMENT A: APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED.	
5. Name of Performing Organization: Joint Military Operations Department			
6. Office Symbol: 1C		7. Address: Naval War College, 686 Cushing Road, Newport, RI 02841-5010	
8. Title (Include Security Classification): Antarctica's Logistic Support as a Military Operation Other Than War (U)			
9. Personal Authors: LCDR Margaret R. W. Reed, USN			
10. Type of Report: Final		11. Date of Report: 13 February 1995	
12. Page Count: 20			
13. Supplementary Notation: A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Joint Military Operations Department. The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.			
14. Ten key words that relate to your paper: Antarctica, Logistics, Support, Navy, Scientific, Joint, Combined, MOOTW, Exploration, Reimbursed			
15. Abstract: Next Page			
16. Distribution/ Availability of Abstract: Same As Report	Unclassified	Same As Rpt	DTIC Users
18. Abstract Security Classification: (U)			
19. Name of Responsible Individual: Chairman, Joint Military Operations Department			
20. Telephone: (401) 841-3414/4120		21. Office Symbol: 1C	

Security Classification of This Page-Unclassified

Abstract of

**ANTARCTICA'S LOGISTIC SUPPORT DEFINED AS A
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The Department of Defense (primarily the Navy) provides to the National Science Foundation, Division of Polar Programs, the logistic support for scientific research in Antarctica. The support of Antarctic research by the military is a long and valuable tradition, beginning with the enormous contributions of RADM Richard E. Byrd. This legacy continues with the weather, air traffic control, helicopter, aircraft, postal, radio, television, recreation, medical, dental, communications, disbursing, and religious services provided by the military. The employment of these services meet the six principles of military operations other than war. The criteria of mission, objective, unity of effort, security, appropriate force, and legitimacy in order to meet a national strategy is more appropriate than describing these services as exotic, unique or unusual. Failure to apply current and accurate terminology can result in the tactical elements of accomplishing the logistic mission overriding the national objective of an active and influential presence. When the national objective is obscured, it opens the door for the erosion of military assets and funding difficulties.

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ANTARCTICA'S LOGISTIC SUPPORT AS A MILITARY OPERATION OTHER THAN WAR

INTRODUCTION

For over thirty years the Department of Defense (primarily the Navy) has provided logistical support for the scientific research in Antarctica. This paper will review the logistic support provided by the Department of Defense to the U.S. Antarctic Research Program, apply the principles of military operations other than war to this process, and discuss its continued validity. "Military operations other than war" is a phrase which defines the use of the U.S. military in actions that may not involve combat. These operations are complex and range from support of national, state and local governments, disaster relief, national assistance, drug interdiction, peacekeeping, support for insurgencies and counterinsurgencies, noncombatant evacuation and peace enforcement. They can be of long duration and shift direction due to changes in the situation or a swing in national policy.

NAVAL ANTARCTIC EXPLORATION

The interest of the nation, the enthusiasm of its people and the involvement of the military in Antarctica is credited primarily to RADM Richard E. Byrd. Byrd's plans for a naval career was cut short and Byrd was medically retired as an Ensign.¹ Byrd wrote, "Career ended. Not

¹Coram Foster, Rear Admiral Byrd and the Polar Expedition (New York: A. L. Burt Company, 1930), 75.

enough income to live on; no chance of coming back..."² In an attempt to revive his naval career, Byrd turned to aviation saying, "My one chance of escape from a life of inaction was to learn to fly."³ He was accepted into the Naval aviation program, and became a pilot. After a few years, Byrd wanted to test aviation to its fullest by flying over the North Pole. The Navy did not have the funds to sponsor Byrd's project, so he obtained private funding from Ford and Rockefeller. On 9 May 1926 with Byrd as the navigator and Floyd Bennett as the pilot they flew over the North Pole. Byrd and Bennett were hailed as heroes and awarded the Medal of Honor by Congress. Using the impetus created by Charles Lindburgh's solo transatlantic flight, Byrd announced his intention to be the first person to fly over the South Pole. Again, with private financing, and after almost two years of preparation, on 28 November 1929, Byrd and his crew flew over the South Pole. For this achievement President Hoover signed a special bill which allowed Commander Byrd to skip over the rank of captain and promoted him immediately to rear admiral⁴. Rear Admiral Byrd, already a larger than life hero, instantly became the premier Antarctic and aviation expert. Byrd led further

²Eugene Rodgers, Beyond the Barrier: The Story of Byrd's First Expedition to Antarctica (Annapolis: Naval Institute Press, 1990), 5.

³Rodgers, 5.

⁴Coram, 244.

expeditions to Antarctica in 1933-35; and 1939-41. World War II suspended Antarctic operations. After the war in 1946, the Navy's interest in Antarctica revived and Byrd was given a figure head position by the Chief of Naval Operations, Admiral Charles Nimitz in the Navy sponsored "Operation Highjump". Under Radm R. H. Cruzen, Operation Highjump was tasked to: train personnel and test equipment in the polar environment; consolidate and extend American sovereignty on the Antarctic continent; determine the feasibility of establishing and maintaining bases in the Antarctic; develop techniques for establishing and maintaining air bases on the ice, and amplify existing knowledge of hydrographic, geographic, geological, meteorological, and electromagnetic condition in the area. Thirteen Naval vessels (including carriers), and over 4,000 men were deployed. In 1947-1948 during "Operation Windmill" two ice breakers with helicopters were used for a similar mission. Due to the high cost of Antarctic explorations, the Navy decided not to pursue additional operations.

INTERNATIONAL GEOPHYSICAL YEAR

U.S. Antarctic exploration remained fallow until scientists convinced the U.S. government to participate in a world-wide geophysical year. The International Geophysical Year was intended as a global free exchange of scientific information and discovery. World scientists were cooperating to improve the understanding of the earth's

environment to include Antarctica. The International Geophysical Year was to last eighteen months from 01 July 1957 to 01 January 1959. Paul Siple, an experienced Antarctic scientist said, "...It was vital that each nation fulfill its capabilities in the necessary geophysical research. With the United States a world leader in science, it was essential not only that we engage in a major program, but also that we offer to aid other nations..."⁵ The National Academy of Sciences asked President Eisenhower to assign the Department of Defense to conduct the logistics support of the International Geophysical Year. Because of the reputation and experience of Byrd and the success of Operations Highjump and Windmill, the Secretary of Defense gave the logistic responsibility to the Navy.

The Navy created Task Force 43 under the command of Rear Admiral George J. Dufek to provide the logistics support for the Antarctica portion of the U.S. interests in the International Geophysical Year. The military were to build six new outlying science stations on Antarctica including one at the South Pole, and a logistics base at McMurdo Sound. The next season the military would resupply the camps for the following year. In January 1959 redeployed personnel and supplies were returned to the U.S. and Task Force 43 was dissolved. The International Geophysical Year

⁵Paul siple, 90 South: The Story of the American South Pole Conquest (New York: G.P. Putnam's Sons, 1959), 92.

was a resounding success. The U.S. collected 27 tons of scientific data on Antarctica alone. The decision was made to continue the scientific exploration of Antarctica. The Navy was selected to provide logistic support. Naval Support Force Antarctica, Antarctic Development Squadron SIX, and Naval Antarctic Support Unit⁶ were created and collectively called "Operation Deep Freeze".

NATIONAL STRATEGY

Operation Deep Freeze is the military portion of the Antarctic program. The National Science Foundation, Division of Polar Programs controls the awarding of grants to scientists and funding for the program. The Department of Defense, and the National Science Foundation are members with the Department of State to form the Antarctic Policy Group. The purpose of the Antarctic Policy Group is to monitor Antarctic developments, provide oversight of U.S. Antarctic affairs, and recommend policy.

The Antarctic Policy Group is guided in their task by the Antarctic Treaty which was signed 01 December 1959 by the United States and 11 other nations.⁷ Fourteen additional nations have agreed to abide by the treaty and conduct substantial scientific research in Antarctica and

⁶Originally named Naval Support Force Antarctica Detachment, Christchurch, New Zealand.

⁷Argentina, Australia, Belgium, Chile, the French Republic, Japan, New Zealand, Norway, the Union of South Africa, The Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland.

have achieved consultative status.⁸ Fourteen further nations have accepted the treaty and may attend consultative meetings as observers.⁹ Reviewed but never changed in over 30 years, the treaty stands as a testament to international cooperation. The only addition to the treaty was an environmental protection protocol added in 1991. To understand the use of the military in Antarctica one must first be conversant with the Antarctic Treaty. The first article of the treaty states, "The establishment of military bases and fortifications, the carrying out of military maneuvers, as well as the testing of any type of weapons is prohibited."¹⁰ This does not preclude the use of military personnel or equipment for peaceful purposes. Articles II, III and IV are concerned with freedom of scientific investigation, the exchange of scientific planning and results, and that the treaty does not constitute a basis for asserting, supporting or denying a territorial claims. Article V prohibits nuclear explosions or the disposal of radioactive waste material. Articles VI through XIV describe the geographical area covered by the treaty, allows

⁸Brazil, China, Ecuador, Finland, Germany, India, Italy, Netherlands, Poland, Republic of Korea, Peru, Sweden, Spain, and Uruguay.

⁹Austria, Bulgaria, Canada, Colombia, Cuba, Czechoslovakia, Democratic Peoples Republic of Korea, Denmark, Greece, Guatemala, Hungary, Papua New Guinea, Romania, and Switzerland.

¹⁰U.S. treaties, etc., "The Antarctic Treaty," United States Treaties and Other International Agreements, TIAS 4780 (Washington: U.S. Dept of State, 1962), v. 12, pt. 1, p. 795.

free access for observation and inspection by all members, assigns jurisdiction of personnel, schedules periodic meetings, agrees to abide by the treaty and settlement of disputes, permits review of the treaty after 30 years, defines ratification and accession processes, and assigns a document storage facility.

On 5 February 1982, President Ronald Reagan reaffirmed the U.S. support to the Antarctic Treaty and defined the strategic role of the United States in Antarctica by writing: "The United States Antarctic Program shall be maintained at a level providing an active and influential presence in Antarctica designed to support the range of U.S. Antarctic interests."¹¹ The U.S. does not make or recognize any territorial claims to Antarctica. The desired active and influential presence is obtained not only by the scientific research but also by the presence of uniformed military personnel, a peaceful but subtle confirmation of our interests in the Antarctic continent. President Reagan also defined presence as the "Conduct of scientific activities in major disciplines; year-round occupation of the South Pole and two coastal stations; and the availability of related necessary logistics to support them."¹² This memorandum specifically states, "To ensure

¹¹U.S. President, Memorandum 6646, "United States Antarctic Policy and Programs," (05 February 1982), p. 1.

¹²U.S. President, Memo 6646, 1.

that the United States has the necessary flexibility and operational reach in the area, the Departments of Defense and Transportation shall continue to provide, on a reimbursable basis, the logistic support requested by the National Science Foundation..."¹³ Succeeding presidents have not rescinded this national strategy.

LOGISTIC SUPPORT IN ANTARCTICA

To understand the complexities of the logistic specifications performed by the Department of Defense, a review of a generic deployment season is needed. The Antarctic bases must generate their own fresh water, and electricity. Every item including food, fuel, and building material must be brought to the continent, while all waste is retrograded to the U.S. Located in the southern hemisphere, Antarctica's austral summer is from approximately September to February and the austral winter from March to August. With the exception of a few transitional months on either end the austral summer, there are 24 hours of light while the austral winter has 24 hours of darkness. In February the bases at McMurdo Station and the South Pole are turned over to a small cadre of personnel who remain during the austral winter months. In June an Air Force C-141 aircraft provide a mid-winter air drop of fresh fruit, vegetables, mail, and assorted supplies to both McMurdo and the South Pole. In August the Navy's Antarctic

¹³U.S. President, Memorandum 6646, 2.

Development Squadron SIX (VXE-6) using LC-130 (ski equipped) aircraft fly six to eight missions to transport the additional personnel needed to augment the winter over staff in preparing McMurdo Station for the summer deployment. In October the summer deployment season begins. In phases, personnel and supplies are flown to McMurdo to land on a runway constructed on sea ice. Wheeled LC-130 aircraft flown by VXE-6, C-130 aircraft flown by the 109th Airlift Group, New York Air National Guard, Air Force C-141, and C-130 aircraft flown by the Royal New Zealand Air Force conduct round trip flights. The aircraft remain in McMurdo just long enough to offload, refuel, and return to Christchurch, New Zealand. On occasion an Air Force C-5 will fly a few turn-around flights. Concurrently the ski equipped LC-130 aircraft operated by VXE-6 fly to the South Pole with replenishment fuel and stores from McMurdo Station. Using LC-130's and HH-1N helicopters, VXE-6 transports supplies and scientists to camps outside the McMurdo area. They also fly local search and air rescue missions. By the first week in December, the ice runway is unusable and operations are transferred to Williams Field, a snow runway. This runway can only accommodate the ski equipped aircraft of VXE-6. In early January a U.S. Coast Guard Ice Cutter cuts the channel through the sea ice (usually about 10 miles out) to McMurdo Sound. About 2 weeks after the ice cutter has cut a channel, a civilian

fuel ship arrives and spends approximately five days pumping fuel to storage tanks. By early February the annual commercial cargo ship arrives. This ship was loaded in the homeport of Port Hueneme, California, and brings the vast majority of the food, supplies and equipment needed for the upcoming winter and the summer season of the next year. The Navy Cargo Handling and Port Group Detachment provide stevedoring services. Throughout the deployment, Naval Antarctic Support Unit, Christchurch, New Zealand, coordinates all staging activities for the joint and combined operations of the Navy, Army, Air Force, Air National Guard, Coast Guard, Royal New Zealand Air Force, and merchant ships. In February all personnel redeploy to their homeports except the volunteers who will provide caretaking services during the winter season. During the homeport season (March through September) the military and the National Science Foundation prepare for the next deployment, which in some cases they plan and order items needed for deployments two to three years away.

PRINCIPLES OF A MILITARY OPERATION OTHER THAN WAR

With an understanding of the national strategy and the logistic requirements for Antarctica, the next step is to apply these actions to the principles of a military operations other than war.

The military is the instrument of national power whether

for combat or non-combatant roles. Military operations other than war usually involve a combination of air, land, sea, space, and special operations forces as well as non-governmental organizations in a complementary fashion. This is certainly the case in Antarctica where the Navy, Air Force, Air National Guard, Coast Guard, and Army jointly provide logistic support. Additionally it is a multi-national effort with the Royal New Zealand Air Force providing airlift support in exchange for fuel and transportation services for the New Zealand science station. On a request basis, assistance is provided to any nation requesting help. In the past the Italian Base at Terra Nova, and the Russian Base at Vostok have been recipients of aid. It is also imperative that the merchant fuel ship and cargo ship be totally integrated into the deployment plans. Proceeding from a broad outline to a more specific view, the next step is to apply the six specific principles for military operation other than war:¹⁴

1. Clearly defined and attainable objective. The strategic objective (as stated by President Reagan) for Antarctica is an active and influential presence on the continent plus the year round operations of three science bases. The military operational objectives are the cohesion and cooperation of the disparate groups required to perform

¹⁴Joint Chiefs of Staff, Doctrine for Joint Operations, Joint Pub 3-0 (Washington: 1993), V-2 to V-4.

the logistic support operations. The tactical objectives are the actual resupplying and movement of personnel.

2. Seek unity of effort in every operation: The National Science Foundation, Division of Polar Programs funds and controls all operations in Antarctica. Through two annual conferences and a written memorandum of agreement, the Department of Defense (through Naval Support Force Antarctic), the civilian contractor, Antarctic Support Associates, and the National Science Foundation constantly work for understanding and cohesion. The State Department ensures compliance with the Antarctic Treaty and clarifies policy with the other members of the Antarctic Policy Group.

3. Never permit hostile factions to acquire an unexpected advantage: One noticeable group opposed to the U.S. Antarctic operations in general is the international organization Green Peace. They have a science camp a short helicopter flight from McMurdo. During the summer, Green Peace erects a small tent approximately two miles from McMurdo Station. Members of Green Peace walk around McMurdo Station and take photographs to use for their own agenda. Interestingly, their ship takes advantage of the channel cut free of ice by the Coast Guard cutter to resupply their base.

4. Apply appropriate military capability prudently: Rules of Engagement are governed by the Antarctic Treaty plus agreements on the protection of flora, fauna and

wildlife. The reasons for restraint need to be understood by each individual service member because a single incident could cause undesirable political consequences, or a potential financial burden. For example, whether in ignorance or deliberate, the fine for disturbing wildlife is \$10,000.00 and up to one year in prison. Civilian and military personnel attend briefings and are provided individual copies of the Antarctic Treaty prior to their arriving in Antarctica.

5. Prepare for the measured, protracted application of military capability in support of strategic aims: The patient, deliberate, and continual pursuit of national goals and objectives for as long as necessary to achieve them is often the requirement for success. In the case of Antarctica, the goal of an active and influential presence has been continuously reached on an annual basis for over thirty years.

6. Sustain the willing acceptance by the people of the right of the government to govern or of a group or agency to make and carry out decisions: Domestically through the Antarctic Policy Group, and the National Science Foundation and internationally through the Scientific Committee on Antarctic Research the U.S. continues to play a leading role in creating policies for Antarctica. The military has performed its logistic duties for over thirty years in support of national objectives. These responsibilities do

not conflict with the Antarctic Treaty ban on military purposes because they are for peaceful purposes, that is they furnish scientific support. In addition to the airlift and sealift services the military also provides: postal services, weather forecasts, Armed Forces radio and television, photographic laboratory, air traffic control, moral welfare and recreation,¹⁵ communications,¹⁶ medical (including psychiatric screenings for winter over personnel), dental, disbursing, chaplains for religious services, and search and rescue activities for any party regardless of nationality or government sanction. Clearly the logistic support provided by the Department of Defense to the National Science Foundation meets the definition of a military operation other than war in all aspects.

THE PROBLEM

The Navy is considering the total withdrawal of their personnel in Antarctic programs due to the "overall Navy-wide end-strength reductions that dictate that these billets, which have extremely limited training or tactical benefit to the Navy, be offered as compensation for higher

¹⁵Gym, weight room, two lane bowling alley, clubs, ceramic shop, gear rental, package store, library, special events, and a small retail store.

¹⁶Fax, satellite access for business phones and public long distance lines, Naval messages, South Pole data link, aircraft satellite communications, HF data circuits, military affiliate radio system, electronics for maintenance and repair, aids to navigation, and FM transmitters.

priority billets programmed for reduction."¹⁷ This action would eliminate a total of 787 Naval billets from the three Navy commands supporting Antarctic research.¹⁸ Why does the Navy, with its tradition of Antarctic involvement wish to withdraw from a program it supports but does not pay for? The reduction in forces explanation in response to right sizing issues is not totally valid. The military suffered drastic reductions in personnel after the end of the Vietnam War, yet the Antarctic program remained untouched. Why should the program be effected now? Although presidential direction dictates operational and logistic support to the United States Antarctic Program be provided by the Department of Defense on a cost-reimbursable basis, there have been some funding problems in recent years. In 1992, Congress decided the reimbursement the Navy receives from the National Science Foundation was to be used as part of the Department of Defense budget cut. This would have resulted in the Navy funding a good portion of the \$83 million dollar expenses for fiscal year 1992.¹⁹ Understandably the Navy did not have the funds nor the desire to subsidize a program that it saw only as scientific

¹⁷Memorandum from Oceanographer of the Navy, G. L. Chesbrough to Assistant Secretary of the Navy for Installations and Environment, 25 January 1993.

¹⁸Point Paper from Raymond H. Godin, CNO N963C, 21 May 1993.

¹⁹Interview with Captain Jack Rector, Commander, Naval Support Force, Antarctica, McMurdo Station, Antarctica: 07 Feb 1995.

support. Eventually the dispute was resolved and the Navy reimbursed, however, it was shortly after this contretemps the Navy decided to try to end its long tradition of scientific support.

THE SOLUTION

It is precisely this outdated view of military resources in Antarctica as unique, unusual and exotic that must change. These operations must be re-labeled in current terms of a military operation other than war. The value of defining Antarctic support in this way is not to be politically correct, but accurate. This label is a constant reminder that while the goal is not military, the commitment towards achieving a national objective is very real. Perhaps if Operation Deep Freeze was defined as a military operation other than war the unfortunate reimbursement issue would not occur again. When viewed in this fashion, Antarctic logistic support is no different than the military assistance provided after Hurricane Andrew swept through the Miami area in August 1992, or when supplies were provided to refugee camps in northern Iraq in "Operation Provide Comfort" in April 1991, or when 58,000 persons in the Republic of Cameroon in Africa were inoculated against meningitis in February 1991. These are examples of non military actions supporting a national objective.

It is the intrinsic responsibility of a combatant commander in a peacetime theater strategy to accomplish

strategic national objectives.²⁰ Operation Deep Freeze needs to switch its focus away from the tactical objectives of the airlift, sealift, weather, air traffic control, and other services. Operation Deep Freeze needs to refocus on its strategic objective which is supporting a range of U.S. Antarctic interests. The Navy should continue to work in Antarctica not because of a thirty year tradition, not because they are logistic experts, but because they provide an active and influential presence in Antarctica in support of national strategy.

²⁰U.S. Army Dept., Operations, Field Manual 100-5 (Washington: 1993), p. 13-1.

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